Part III - Responsiveness Summary

Transcript of Proposed Plan Public Meeting

PUBLIC HEARING ENVIRONMENTAL PROTECTION AGENCY LAVA CAP MINE SUPERFUND SITE PROPOSED CLEANUP PLAN

NEVADA COUNTY BOARD OF REALTORS

336 CROWN POINT CIRCLE

GRASS VALLEY, CALIFORNIA

THURSDAY, FEBRUARY 26, 2004 6:30 P.M.

REPORTED BY:

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INDEX

	Page
Opening Remarks by Mr. Hodge	4
Presentation by Mr. Seter	5
Public Comment Jerry Grant Sharon Jones Charlie Hatcher Rick Weaver Will Doleman Fred Lee Michael Miller Tom Holdrege Kyle Leach Mike Brenner Jim Dyer Volker Fernley Doug Haussler Dixie Lee Tim Taylor Craig Thurber Byron Young	32 35 37 40 42 47 48 49 50 51 55 58 59 69
Adjournment	75
Reporter's Certificate	76

1.5

PROCEEDINGS

MR. HODGE: I'm Don Hodge with the Environmental Protection Agency in our Office of Community Involvement, and I work in public participation processes like this one. That's my role here. I'm going to try to facilitate this meeting and make sure that your needs are met and that we provide you with what you're looking for tonight to the extent that we can, and we make sure that, and this is the main purpose of tonight's meeting, that we make sure that we are getting your ideas and your thoughts about what we're doing here.

So this is an official public hearing about a part of the Lava Cap Mine Superfund Site, and the purpose is for us to record your comments about the plan that we're proposing.

So again, I want to welcome all of you and I want to introduce, standing in the back here, Dave Seter, he's the project manager for the Lava Cap Mine Superfund Site for the EPA. And the plan for tonight is that Dave would like to present a basic sketch, a basic outline, of what we're doing for this part of the site just so that everyone here has the same basic pool of information. You may have also seen the proposed plan that we mailed out, if not, we have more on the back table in the lobby there.

And then after that, we'll open it up for your

comments. And if you have a question and we can clarify or answer a question briefly, we'll try to do that. If you have comments that we can't and we just have to take back to the office and think about it and work into our planning process, we may not be able to address everything tonight.

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But, again, the main purpose is for us to hear from you to make sure that your thoughts are recorded. So we may not address every -- or we may not solve every issue, but if you have a question that we can't answer, we'll try to do that.

So I hope you've all signed in. If you haven't, if you could make a time sometime tonight to sign in, that way we will know who is here and we can make sure that you're on our mailing list. And, again, I appreciate you coming out tonight.

MR. SETER: Thank you. There are copies of the overhead in the back, so I don't know whether you all got a copy. If you didn't, certainly on the way out or if someone wants to raise your hand if you want a copy now, we can probably provide you one.

This is one of the series of meetings we've held and most of our other meetings have been describing what we've found at this particular site. The Lava Cap Mine is more than just a mine, there are other areas that are affected. Tonight, though, we're talking about the cleanup

of the mine itself. I did put up one of the poster boards, this is a document that's available in the library. I know it's not easy for everyone to see, but I would encourage everyone to take a look at the map, if you haven't done so already.

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The mine area that we're talking about basically is when you come off Idaho-Maryland Road and come down Lava Cap Mine Road, you run straight into the mine area. And we're dealing with the area from that point to the intersection of Greenhorn Road with Little Clipper Creek.

Now, another part of the site extends down beyond the south of Greenhorn Road and we will be addressing that in a future meeting, but for tonight we're talking about the mine area in particular.

And we also have some photos. I know that most of you probably have never been to the site, and so it's just good to have a little visual as to what it looks like.

That's probably a little clearer in the back. But I'll go over some of the history briefly.

Gold and silver mining started at the Lava Cap
Mine around 1860 and initially it was on a very small scale.
For a period of time starting in 1918 there was no mining.
Then in 1934 the operation started up again in a much more intensive scale. And so it's during the period of time,
1934 to 1943, when most of the ore was mined and crushed and

most of the gold and silver was extracted.

Now, the thing that happened was the native ore was very high in arsenic and so the milling process ground that material up to a very fine powder and the material was then passed through a floatation process to remove most of the gold and silver. The tailings, which was the remnants of the milling process, were then dumped into the adjacent ravine, which happened to be the Little Clipper Creek stream channel, and that's how this whole problem started.

During that same period, 1934 to 1943, a crude log dam was built at the very base of the area, and here I'll show you the remnants of that log dam. The log dam used to extend all the way across that area, and you can see some of the logs sticking up almost like match sticks. Well, that dam was built during that period of time to try to hold the tailings in place. It didn't entirely succeed. Even after mining ceased in 1943, the site still caused an impact. As early as 1979, the State of California issued a cleanup order to the owner of the mine, because this dam already started to leak some tailings.

And then in 1997, in January, there was a winter storm that caused all this damage, it knocked out that upper half of the log dam. Approximately 10,000 cubic yards of those tailings moved downstream further into the drainage, and so that's what created the problems to the south. And

not entirely though, because Lost Lake was originally built with the tailings and those of you who are curious to continue with the site, that will be the next part of our cleanup plan, how are we going to deal with that material down there.

EPA did do some emergency work to stabilize this material, but we determined that some additional work was necessary to keep it in place, and that's why we're here today. We've done a number of studies, and today we're telling you what our proposal is to clean up this part of the site.

As Don mentioned, we're looking for a few comments. Now, there is a number of ways you can comment. There's tonight's hearing, there is a written comment period, you can send your written comments. You can send an e-mail comments. We have our e-mail addresses on the fact sheet. There is even an 800 phone number you can call.

And I just wanted to emphasize, we're going to try to cover as many facts as we can tonight, but just because of how complex the process is, I probably won't be a hundred percent complete. That's why we have in the libraries an information repository where we have feasibility studies, where all this material comes from, and we also have what we call the Administrative Record for the site that has all the investigations that were done, it has some comments from

interested parties regarding the cleanup, a number of 'documents that might be of interest to you if you're trying to research the history and delve for yourself into some of these issues that I'm just going to cover very briefly, because I really only have a short period of time.

So in the handout, there is a timeline that I just went over, and you can certainly peruse that at your leisure.

I want to talk a little bit about how for the mine area we further divide up the site. Now, and this is because each one of these phases of cleanup are slightly different. There are some residences on site, there are four in total. One of them is probably going to have to be demolished as part of the cleanup, but the other three have some arsenic in the soil around the residences that is contaminated with arsenic.

The second category deals with where most of the processing and waste disposal occurs, so it talks about the mine building, the tailings, waste froth, which is the material, more of the overburden that didn't have the gold in it. That was discarded off to the side and wasn't actually put through the mill, so it's a larger fraction, a very large gravel. And then we have some surface water impacts that I will talk about.

Then the third phase talks about Little Clipper

Creek, from the base of that damaged log dam, you see, down to Greenhorn Road.

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And, incidentally, as we're going along, if something isn't clear, again, feel free to just pipe in.

I'm just going to try to go through the material.

Now, there's a diagram up to the right, to my right, of the podium that is similar to this, but I thought a picture is worth a thousand words. And so we'll kind of take a look at this as well, and it will describe to you a little more visually what we're talking about.

So we have the four residences that I'm talking about are here, here, here, and one of them is here. This is the one that's very close to the tailings and the waste rock area. This is the one that's probably going to have to be demolished.

The mine buildings I'm talking about are up here. You see mill building, the assay building, the cyanide building. The waste disposal area is this area here, here's the log dam that I've shown you before. This area, a little bit up gradient, is about five acres in size, it contains tailings, and that's about 50,000 cubic yards of material. And I did it on my calculator this afternoon, so 50,000 cubic yards, I guess a football field is about 50 by 100, that would be about 30 feet high in tailings. So a football field 30 feet high would be about 50,000 cubic yards of

tailings.

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Then this area back here there is a lot of waste rock, but in terms of area, that's a little bit larger area, it's about 5.9 acres, and I guess you could say about 160,000 cubic yards of material up there.

Now, a little bit about surface water. This little blip here that says adit discharge. There was a horizontal opening to the mine that's known as an adit and that continues to drain water. It drains year round, so it's not even just a seasonal flow, there's a flow year round. The flow does increase in the winter. That's definitely contaminated with arsenic, so we need to collect that and treat it. At the base of the log dam, there's contaminated water coming out because the tailings themselves are saturated and they are releasing some arsenic over time.

Now, one of the other complications of this project, because we have to separate the clean from the dirty water, there is a lot of clean water that is just washing over these tailings. And one of the reasons this diversion was created back in 1997 was to try to eliminate some of the water that is washing over the tailings and keeping them saturated. So there's two aspects to the surface water, one is keeping the clean water clean and the other is collecting the dirty water for treatment.

Now, this graphic doesn't show the Little Clipper Creek portion, because it's really dwarfed in scale, but this particular poster board shows the area of the creek south of the dam, and this is Greenhorn Road. This is Tensy Lane. And this blue area is where we think the tailings have been deposited along Little Clipper Creek. I think we were saying that was about 2,000 cubic yards of tailings. It's a little bit -- yes, certainly considerably less material than is up at the mine, but still along this corridor.

Lost Lake is another mile south of Greenhorn Road. So this gives you a sense of how far the damaged gravel.

And on the back poster board you will see a list of technologies and cleanup options. We had to look at a number of technologies, but how do you deal with this material, how do you deal with the contaminated soil, how do you deal with the sediment, how do you deal with the water. There are a number of technologies you can use. The feasibility study goes into them in a lot of detail. And there are so many technologies we needed a way for figuring out what are you going to do at this site. And the process that's actually called out in their regulations is essentially this, you have a number of criteria we need to apply to sort of rank these alternatives relative to one another.

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Now, in order for us to propose any cleanup alternative, it has to meet what are called those threshold criteria. So it has to be protected, you can't just propose something just for the heck of it and it's not protective and just walk away. It has to be protective and it has to comply with state and federal requirements. There is a whole series of regulations dealing with water quality, how you build a landfill, et cetera, that we're required to meet. Just because we're the federal government, doesn't mean we can ignore state law. We have to follow state law and regulations also.

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Now, balancing criteria will become a little more clear as I go through some of the following slides, but those are really how do you compare. Well, you look at the costs and how effective they are, you look at the construction impacts while you're building them, those sorts of things.

So we're up to this part of the process now. These last two have to do with the meeting tonight and we have a 30-day comment period. Really, once we present what we think is a good idea, we're looking for state acceptance, we're looking for community acceptance. And so part of the process is we take comments, we're required to formally respond. So whether it's written comments or an oral comment you make tonight, we have to come out with a

response and say, yes, we agree, no, we disagree for this reason, et cetera. So those are what are called modifying criteria. So we could, you know, if we get enough comments to say, oh, you're doing the wrong thing, you should do something else, we don't have to go with this, we can go with something else.

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Okay. Well, I think I will go into some of these matrixes which are a little complicated. But what I've tried to do is highlight the areas where we see differences. Now, this is in your handout. There is also a version of this in the original fact sheet that was mailed out. So you can refer to either one of those. But, again, we broke this down into three areas. The first one is talking about those residences I mentioned earlier.

You will see Alternative 1-3 and 1-4, you may say where is 1-1 and where is 1-2. We deliberately have left out, 1-1 is no action. Under Superfund, we're required to include no action as an alternative, leave things as they are. But if that's not protective, if we decide there's a risk to health, we can't do that. So that's been eliminated.

1-2 was institutional controls only, and institutional controls are land-use regulations. For example, if you did leave the material where it is now, you would tell the property owners along Clipper Creek, well,

you can't disturb that material, I mean you can't ever make use of that part of your property. Similarly to the residences at the mine, if we don't clean up the yards, we would have to tell people, oh, no planting gardens, no letting your kids play in the yard, no letting your dog run in the yard. So we eliminated that too because we don't think that's protective either.

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So what we're left is typically what things can we do. We can either dig up the material or cover it up, and that's what you see here. And they are very similar, they both are a way to protect people using both these alternatives, but where we think the differences lie is if you dig up the material, it's more effective because you're just physically taking it away, you're taking it out of the yards, and you don't have to worry about telling people 50 years from now you cannot let your kids play in the yard, you cannot let your dogs play in the yard, you can't plant vegetables.

The advantage to capping is less construction impact, it's easier to come in with large material and spread it around. You're not excavating the contaminated material, you have less issues with the material blowing around, so that's in it's favor.

But when you look at the overall implementability, which is almost a cash fall, but the excavation is more

implementable as a cleanup because we don't have to have these land-use restrictions. We don't have to rely on other people to implement the cleanup for us. Once we take up the material and put it away, things are pretty safe.

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The costs, I wanted to explain. Some of you might know what present value means is. We're supposed to compare the cost of all these alternatives. So the 50-year present value would be how much money do you have to put in the bank today to build it and pay to maintain it for 50 years. So that's where we come up with the comparison. They're very close in costs, so apparently it wasn't a factor in our decision making.

But, again, as I will get to later, among these of our preferences were one for excavating material.

I'm going to skip directly to Little Clipper
Creek, because that's a little less complicated too. It's a similar situation. What we have done is we've said we're not going to choose no action, we're not going to choose these land-use restrictions, we need to do something physical. And, again, it's the same two options, do you cap the material and put a clean layer over it or do you dig it up. And, again, it's a very similar argument. Taking it away is more effective in the long term, because, again, you're taking it away from the people's yards and the stream channel. It's a little more disruptive in the short term,

although I have to say in this case when you're capping the material, you also have to do some flood control which is a little bit invasive, so it's probably a less natural-looking channel.

And, again, we just think that the Alternative 3-4 is more implementable. It's also cheaper. Now, there is an error in the fact sheet, the fact sheet says capping the material is cheaper, but that's not the case. Excavating is cheaper because this other half million comes from flood control. It's a little more expensive to try to control the floods than it is to dig up the material and take it away.

MR. HAUSSLER: So would there be any channelization if you excavated the stuff out of there.

MR. SETER: You know, we would probably have to do some regrading and reshaping, just because if you take out more material from one part, then now you have a big hole. So to make the creek flow, you would probably have to do some reshaping. But it would be more natural in appearance than if you had to build a flood control channel, for example.

Okay. Now we get to the more expensive part, which is dealing with that big body where we're dealing with the mine buildings and the waste material. And, again, you'll see, if you look at the proposed plan, again, you'll see a number of alternatives. You will see four, and you

only see two up here. And I'm going to go through those rationale a little bit. Again, we're not doing no action and we're not doing these land-use controls.

We also have included in our analysis Alternative 2-6, which is digging all the material up, hauling it off to some other landfill. We're saying that is basically unimplementable because other sites where we have tried to do that, you have another community that wants to know why are you sending your waste into our community. It almost never works, there is always political issues involved with that, and it's very difficult to implement. It's also, again, 50,000 cubic yards of tailings, if you use a 20 cubic yard dump truck, that's 2,500 truckloads. A lot of material has to go out either on Tensy Lane, Greenhorn Road, it has to go somewhere. That's a lot of truckloads to haul through the neighborhood.

We haven't talked about the 2-4 option here because that involves solidifying part of the waste, and we don't really think it's that different. If you don't solidify the waste, you have to build a slightly larger containment structure or buttress, and I didn't include it for further analysis because it's so similar to the other two we're talking about here.

So anyway, without further ado, the ones that we really considered the most seriously were these

Alternatives, 2-3 and 2-5. And the basic difference is that Alternative 2-3 caps the tailings in place where they are. Alternative 2-5 digs them up, creates a new landfill cell on the property, most likely in the area where the mine buildings are located.

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They both have the same options for treating water, for diverting the clean surface water, collecting and treating the dirty water. So they both have that in common. And, again, we think they are both protective. We think they both comply with state and federal law, we think they're both effective.

The one potential difference is the new disposal cell has an underliner, so it has a lower liner, you put the tailings on top of it, it has an upper liner. The lower liner is intended to keep water from seeping through the tailings into the ground. The upper liner is intended to keep rainwater from coming into the material. If you cap the material in place, there's no way of putting an underliner. So there's still some water that might seep into the ground, seep down towards the log dam. And, again, there's an issue with short-term effectiveness. Short-term effectiveness again means construction impacts, that's probably an easier way to say it.

To dig up 50,000 cubic yards of material and move it to another part of the site, first of all, it's very

saturated, you have to go through what's called a dewatering process. Dewatering takes time. Also when the material is dry, it's very much like baking flour, if you step in the material, it becomes airborne very easily. Our concerns are having that amount of material, you might create some airborne dispersion. It's also a little more difficult in terms of the engineering to dig out that stream channel. As you saw in the photo of the log dam, you have to remove all of that material. The natural stream channel is much deeper and much more deeper in a V shape.

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So we think capping in place is more implementable. It's slightly cheaper, when you look at the capital costs, which is the capital costs of actually building the thing. Let me see, I have the figures here, let me put that up. Okay, so to cap the tailings in place, what we're also going to do is replace that crumbled log dam with a rock buttress, which is a big, big pile of rocks. I'll show you a drawing of that in a minute. Without the water treatment, it costs \$4.5 million, and then to excavate the material to create a new cell, it costs 7.5 million to construct.

So the construction costs are much higher to build a new cell. As you cost it out over 50 years, the cost would come closer, and that's mainly because you still have to treat the water under both of those options, and the costs just become very similar as you go out 50 years.

So I'm going to put up a graph. And this is what kind of explains again in visual terms of what I'm saying.

AUDIENCE MEMBER: So that's water treatment in perpetuity is what you're talking about?

MR. SETER: Water treatment as long as -- yes, as long as the water has arsenic in it, which is for the foreseeable future. You would have to say, yes.

Let's see, so depending on how much water you need to treat, now this is something else I can go into, if anybody is interested, but the range would be about 64,000 to 110,000 a year to treat the water.

Now that figure is based on a conventional treatment process, which means a coagulation/filtration process. You would have to add a ferric chloride coagulant, and what that does is it causes the arsenic to agglomerate, it causes it to come into larger masses and settle out. It's a little bit energy intensive, it's material intensive, because you have to add the ferric chloride, you generate the sludge that you have to dispose of.

What we would like to consider is some innovative technologies. And if you can reduce the amount of water you have to treat, you might get by with technology. There is a zero-valiance iron, for example, that would work much like a filtration system. The water goes through the filter, all

the chemical reactions happen in the filter bed itself, you don't need coagulant, that would be much cheaper. But we really, until we can go out there and do a pilot study and test that kind of technology, we have to cost out what's the most conventional. So we're hoping that some money can be saved if we get a little creative.

So, again, this is a figure of what the cleanup would look like as we're proposing it now. Now, this area here where the tailings are located, that would have the cap, that would be the cap in place. This area where roughly the log dam used to be would be a rock buttress, and I'm going to show you a diagram of that. In fact, I'll show it up here, I'll put it up here. And, again, there is a drawing of this in the fact sheet, but that's the drawing at the bottom of what a rock buttress would look like. It would be fairly large in size, it would be much wider than the log dam mass. It would have, and I think this is an opportunity to talk about the cap a little bit too.

The cap that we're proposing would have the tailings, it would have a sand layer, it would have what's called a high-density polyethylene membrane, which is a form of plastic. It's a membrane that's typically used as a water barrier. There would be a soil cover on top of that high-density polyethylene barrier. And then there would be vegetation on top of the soil.

But more to the point of the buttress, there would be this sand section which would collect any leachate that was generated through the tailings. So leachate being water that is dropping out of the tailings, whether it comes in from rainfall or if it's water that's currently in the tailings that wants to come out due to gravity. So that's what a buttress would look like roughly, and that would be again in this location.

This other circled area up here is where the waste rock is currently. I didn't talk a lot about the waste rock. But the waste rock isn't really a threat like the tailings are, it's very large material. But it needs to be shaped to shed the rainwater, it needs to be capped, because there probably are some fine materials interspersed with the rock, and we just want to try to keep it all in place, if possible. So this area would be recontured, we would have the soil cover, and it again would have vegetation growing on top of it.

The two points where we would be collecting water for treatment are down here at the buttress. I showed you this sand drain where water would be collected. And then at the head, which is right here, and here's our treatment plant.

And we don't show the residences or the creek, that's pretty simple, just digging up the material and

putting in clean fill, that's fairly obvious.

I also will show you on the overhead. We talked about the buttress a little bit, but I also wanted to talk a little bit about Little Clipper Creek. And so in order to keep the creek from pouring over the tailings like it used to do once upon a time, we have to build a flood control channel, and that would be located over here. Let's see, these are a little hard for everybody to see, I think.

But the creek currently comes down on the east side of the tailings, and we want to keep it there, but the current flood control structure isn't big enough. So this would have to be big enough to accommodate a hundred-year flood event. In comparison, the event that washed out that log dam back in 1997 was probably only what a 20-year, about a 20-year frequency storm. So we need to build something much larger than what damaged the log dam before.

And this is basically what it would look like. It would not be very natural in appearance, but would do that job. It's much larger than what the creek looks like now, it would just be obvious that it's a flood diversion channel. But, again, this would only go the length of the mine property. By the time the creek catches the area below the dam, that would no longer be necessary because we're taking out those tailings.

Okay. And, again, this is in the feasibility

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study, for those of you who are really interested in delying into it.

Now, this is a view of what would be a new cell, if you constructed a new landfill cell on the site. It's showing a lower liner, it's showing an upper liner. This one is known as a ATP Geomembrane. The one where we kept the tailings in place would be missing this underliner. It also would not have this lower leak detection system, because we would only be collecting the leachate from the tailings. So there are some differences between the two types of landfill.

MR. DYER: What's the life expectancy of the underlying membrane?

MS. SETER: At least a hundred years, I believe. I'm looking, I have some of my consultants in the audience here too. I believe -- if you talk to the manufacturers, they say more than a hundred years, but obviously the materials haven't been around for a hundred years.

These are obviously issues and these are things everybody would want to consider. And in each of these examples there's a membrane, so you have to consider that equally for the two alternatives.

There are maintenance costs associated with many of these landfill cells. So they do have to be periodically repaired, monitored. So we're not saying you can walk away

from it today, there's an intent to put a plan in place to monitor the situation.

AUDIENCE MEMBER: Could the cost of the maintenance be included in your costs?

MR. SETER: Yes, they are. And I don't know how many of you have access to the materials in the library, but there is a cost table, and you are certainly welcome to come up and look at it after the presentation. But what we have, let me see, for operation, annual operation and maintenance costs about 67,000 dollars annually. And again, that wouldn't necessarily be all in one year, it would average out. So in one year you might need to do more work than another year. So the thing is averaging out over 50 years, you don't need to replace material every year, but some time during that 50 years you might need to do some repairs.

I'm sorry, a question.

AUDIENCE MEMBER: My understanding is that the EPA passes off the responsibility for monitoring and so forth to the state at some point. What sort of legal document to you draw up with them to make it enforceable.

MR. SETER: There is an arrangement that is part of our operating regulations and we have operating regulations, and again, it's kind of an unwieldy name, but it's called the National Contingency Plan, NCP regulations. It says that after a cleanup is called operational and

functional, once everybody has looked at it and says it's working, the state takes over what's called operation and maintenance. So they would then start assuming those costs.

Now, that's what the regulations say, it doesn't just happen automatically. The EPA and the state have to enter into a legal agreement that is called the State Superfund Contract, where some of it is negotiable, some of it is less negotiable, but we basically agree EPA is going to spend this much on construction, this is when the state takes over, this is how much the state recognizes they have to pay.

Typically we get a much better handle on the cost once we've done a more detailed design. What you will see in the feasibility study is a conceptual design, and so we'll have a much better handle on costs once we do the final design. But that is an issue for the state and we're — one of the modifying criterias is state acceptance, and that's one of the things the state needs to consider is how much is this going to cost in the long run to operate.

AUDIENCE MEMBER: Do they ever refuse?

MR. SETER: I don't know of any case where they've refused. There have been some difficult negotiations.

Because everybody wants the cleanup to happen. The thing is these materials, you can't just leave them in their current condition, another 20-year storm or 30-year storm or 40-year

storm will come along and wash the tailings further down. So something has to be done. So we generally are able to negotiate something, and again, that is one of the reasons state acceptance is one of our modifying criteria. If they think something is cheaper or better, they're going to tell us that.

AUDIENCE MEMBER: But so then in like year 10, the EPA could actually say you're not doing this and sue the state or how does that work.

MR. SETER: No, we wouldn't sue. I don't know what, reopen -- there is typically reopen areas in these contracts if something isn't going according to plan, we have to discuss. If something wasn't being done properly and it was creating a hazard, we probably would end up doing an emergency response. EPA probably would go ahead and spend the money to correct the situation. So fortunately I don't know of any situations like that where that has happened, but there are mechanisms, there are a lot of ways that we can address new contamination or something, if something happens that the state can't control, we would be on the hook to still do that. We can't totally walk away from it.

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MR. TAYLOR: We had this meeting a year ago and we had a lot of different options and costs and stuff, and sort

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of at the end of the meeting, it was, you know, we had all these great sort of plans, but there was no money. Now, we're coming back here, and where did you get the money? I mean you have the money to fund this project?

MR. SETER: We don't have the money yet. We actually don't get in line for money until we've completed our design. So there are a number of other sites that are going into construction like us, we have to get in line and ask for money, and then, if there's not enough money to go around, someone back in Washington has to make a decision who gets the money and who doesn't. And I don't know that we've reached that situation yet. I think this year it will be interesting to see because the budget is tight. It will be interesting to see this year if sites that are asking for money get it or not. We probably wouldn't be in construction here until a year from now. So there is a little bit of window, but it's just hard to say right now.

Which basically brings me to the next step, and
I'm drawing my part of the presentation to a close here, and
then we'll take some public comment. But this is where
we're at. So I've tried to in a condensed version give you
what we're proposing to do and, again, there are many other
ways to read about that.

And the 30-day public comment period is officially open. There are a number of ways to submit those comments

as I've discussed before. Once the comment period is over, we need to present the written documents where we ask for everybody's question and make that available so everybody knows why we did in the end, the final decision.

So this is a proposal. Once we finalize our decision, we have to write another document that says, okay, this is what we've chose, this is why we've chose it. And we should get that done by this summer. Design, remedial design, it could take six months, depending on some of the administrative steps, it could take longer. But what we're hoping is that next construction season we're building out at the site, that's our intention.

AUDIENCE MEMBER: What's the situation with the groundwater contamination, the test wells, is there any conclusive results?

MR. SETER: There are. We have a separate groundwater study that we've just started. As we were conducting the investigation for the mine area and down at Lost Lake, we started to realize that there's some wells that had arsenic in them. It looked like they were higher that what you would normally expect. You would expect to find some arsenic in wells, just because it's naturally occurring, but it's occurring at a slightly higher level than we would expect.

So we really didn't have the resources in this

part of the study to really cover that, so we have started an entirely new groundwater investigation where we're going to look for well records, look at where the wells are located and how deep they are, what formations they're in, and what the water flow might be from the mine and other areas. So it's a little bit more involved than we could cover under this part of the investigation. And we recognize it's important, because people do use individual wells for water supply, it is important.

It seems that the trends in the wells that we have been monitoring, it doesn't seem like levels are increasing, so don't feel like the situation is out of control, but it is something we do want to study and see if something needs to be done. And I would say that study will probably take 18 months to complete, again depending on funding. We do have some funding for that. So it is a good point, that's something that always comes up at these meetings. We do want to look at the groundwater.

I'm sorry, Don has --

MR. HODGE: If you're about done with your presentation, then before we open it up to comments, I just wanted to make a couple of procedural points here. So is this a good time to do that, you think?

MR. SETER: I think so, yes.

MR. HODGE: This is, as I was saying earlier, this

is a public hearing for all of you. And before we start taking a lot more questions, I just wanted to make the point that this is being recorded, there will be an official transcript of this entire meeting. So when you ask your questions or make your comments, if you could please state you name for the record for our court reporter, it would help him a lot, and probably your address would be helpful also, okay.

So I think we can go ahead and open it up. If you could just give me a show of hands, how many people have a question or a comment at this point they want to make?

How about we work from my right to my left, does that work?

Okay, so starting over here. Do you want to go first?

MR. GRANT: Yes. Jerry Grant is my name, at 13105 Alder Point, around Lost Lake.

I have two questions. What was the purpose of limiting the project to Greenhorn, was it just simply a matter of money?

And my second one is, obviously this is still connected to the Superfund Trust Fund, I assume, which, as far as I'm concerned, is broke. I was under the impression that in 2000, a hundred million was left in that trust fund, because in 1995, there was 3.5 billion in that trust fund,

and then our current administration kind of rescinded the rule which funded that, which the chemical companies fund the trust fund.

So my question is, as far as I know, there's no money in the trust fund, and secondly, why has this plan had to be stopped at Lost Lake at this point?

I have a third question too. Are you monitoring the water in the streams and in Lost Lake and down all the way to Rollins Reservoir, have you actually tested the water recently?

MR. SETER: Okay. Well, the first question deals with Lost Lake and why are we stopping at Greenhorn. We are phasing this construction project, mainly because it's easier to figure out what's happening at the mine. We did have a public session, we talked about Lost Lake last year, we talked about a range of options, if we were going to clean this up, how would you do it.

It's a little more complicated, there's more property owners, people own a wedge of the lake pretty much like the slices of a pie. So it's just been pushed back, we're dealing with this part first further upstream. If we don't keep the material up at the mine and it keeps flowing down to the lake, it doesn't matter what we do at the lake, because more material is just going to keep flowing up on top of what's there already. So we don't intend to forget

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about Lost Lake, it's just it's trailing behind a little, bit. We're probably a year behind for that part of the site. So we haven't forgotten about it.

I think the second question, Don --

MR. HODGE: About the trust fund. You're right, the Superfund, as it's called, the trust fund that our program uses for cleaning up sites that are on the National Priorities List, was funded by a tax on certain industries, and that tax expired in 1995 and hasn't ever been reinstated by Congress or in the administration since then. doesn't mean that we don't have the money to do cleanups, it just means that the money for cleanups has to be appropriated out of the general fund, like the money for every other federal program. We no longer have this separate pot, or if we do, it's just filled up every year out of the appropriations process. And so far, at least in Region 9, there has always been enough money to construct the projects that we are ready to go on each year. Whether that will always be the case in the future, we'll just have to see.

MR. SETER: I'm sorry, on the third part of that, could you repeat it, I'm sorry?

MR. GRANT: The third part of it was what was the last monitoring of water from Clipper Creek and Lost Lake and down through Greenhorn?

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MR. SETER: For us that would have been November or December. I don't know if we have the data back from that yet. And actually, I would have to defer, if you guys know, I have my contractor in the audience. I don't know if you have that information off the top of your head or not.

MR. TOWELL: The water has been sampled quarterly, that surface water, on down to the end of Little Clipper Creek and Lost Lake and then on down into Little Greenhorn Creek. And are you asking specifically the concentration?

MR. GRANT: Yes. How can we get information on the concentrations?

MR. TOWELL: The contact information is in the fact sheet, you can send an e-mail to Dave asking the question, and he will send you back a table in the mail or e-mail. But we do monitor pretty much quarterly at several locations along the Clipper Creek drainage.

MR. LEE: We also issue periodic data reports which are more elaborate. Fred Lee.

MR. HODGE: Let's see, who had their hand up?

MS. JONES: My name is Sharon Jones and I'm from

TAG Committee. I'm wondering what happens after 50 years?

MR. SETER: Well, 50 years is used for comparison purposes only. We have to pick some timeframe to cost stuff out. And as you get out a hundred years, two hundred years, three hundred years, it's just the nature of present value

calculations, the numbers don't change that much. So 50 , years, we use specifically at the request of the state. We often do 30-year present value, and the state said, we'll, if we're taking over on that so soon, why don't you cost that at 50 years, that's where we list the projection of long-term cost. So that's why we did it that way. Now, it doesn't necessarily mean that's the end of the costs or that's the exact number that the project will end up costing, it's a projection where we're comparing different alternatives, just the relative factor to the cost.

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MS. JONES: So it's only for cost comparison purposes, but you intend to monitor this after 50 years? The state should have some funding for that?

MR. SETER: Correct. And that would be part of our arrangement. In the State/Superfund contract, we decide whose responsibility is going in which direction.

Am I allowed to add information, because I think I wanted to mention five-year due process. So we're required five years after construction begins to take a second look, look at is this remedy working, is the monitoring being done, are there new technologies that can save us some money. And it's something that we're required to do, and I know it's really hard to look out 50 to a hundred years, what's going to happen, but we have that five-year review.

MR. HODGE: Let's see, I already started working

this way. Let me go back here, but you're next in line. .
But I promise I'll get to you.

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MR. HATCHER: My name is Charlie Hatcher and I live at 1370 Raccoon Mountain Road. So south of Greenhorn on a piece of property that has Little Clipper Creek running right through it, which I just bought four months ago and this is the first I've ever heard of this.

So I guess my questions would be first about disclosure, but you wouldn't be the right person to ask about that. I guess I'll talk to my realtor and the previous owner about that.

But my main question is about health risks involving groundwater and then also involving the creek, I mean there are brown trout in the creek, obviously I probably shouldn't go fishing in it, but where does the levels in the wells in that area, you know, should I be drinking the well water? And I guess the basic questions because I'm just being introduced to this at this time.

MR. SETER: Well, around Lost Lake we've been very fortunate. In our well sampling program, most of the wells have no detectable arsenic. Now, when you go to the laboratory, there are levels that they get down to and whether it's any amount lower than that is hard to say, but those are at levels that are considered safe. There are a couple wells that have had low levels, but we consider the

water down there, the groundwater is safe, based on our criteria.

Now, with respect to fish consumption, we have some statistics in our earlier studies, and I just haven't committed them to memory, but in general we are discouraging recreational use of -- there are precautions that can be taken. But I would encourage you to send me a reminder, I can get you some more detailed information than I have described from memory, if that's okay.

MR. TOWELL: We wouldn't recommend eating the fish. The creek is better, I mean we did sampling of those during the remedial investigation and the concentrations in the creek were not as high as in the lake, but there is arsenic in the creek.

MR. HATCHER: That was more or less in jest. But what I was thinking was more of animals playing in the creek, children playing in the creek, and where do you draw the line on getting involved in the creek?

MR. SETER: We don't recommend that it be used for any recreation at this point, and until it's cleaned up really, we just don't think it's safe for people. And that's not to say, again, there's always ranges of risks, but in order to be protected, we just don't think people should be near it.

MR. HATCHER: Pets also?

MR. SETER: There haven't been extensive pet toxicological studies, so I will often ask people for this information, and there seems to be a lot of information, dogs, for example, being exposed to this. There isn't much information available, but again, I would just use caution, I don't have any specifics. Again, we can try to follow up and if we have other information, this is simply what I know at this point.

MR. TOWELL: The tailings around the lake and if there are any in that part of the creek are more of a hazard than the water itself, but just in general, people and pets should avoid recreational use of that, limit it as much as you can.

MR. HATCHER: So no wells in the area have been closed to date?

MR. SETER: Correct.

MR. TOWELL: If you let me know after this which parcel you bought, we may have sampled that well, because we sampled many of the wells along Little Clipper and Lost Lake.

MR. HODGE: It's getting to be impossible to record this, because we're starting to get a general conversation going and there's a lot of people. So we're trying to keep it a little bit organized so we can get a good transcript.

What's the question?

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MS. JONES: My name is Sharon Jones, I'm with the TAG Committee. And I just wanted to respond to the issue about not being notified about this by a realty agent. I've heard of other people who said the same thing and I've talked about -- but I'll call the Board of Realtors tomorrow and talk to them about it, and point out to them that their risking lawsuits if they don't start notifying potential buyers.

MR. HATCHER: Thanks.

MS. JONES: If I were you, I would talk to your real estate agent.

MR. HATCHER: I think I might wait awhile.

MS. JONES: More than one phone call.

MR. HODGE: Did I get all the hands on this side?

MR. WEAVER: I was a little late so I'm trying to get up to speed. On page 5 of this brochure, it says the mine water adit discharge is 910 micrograms per liter of arsenic, and on the other page, the cleanup levels of the preliminary remediation goals says you're going to shoot for a 10 micrograms per liter.

MR. HODGE: I'm sorry, could you give us your name?

MR. WEAVER: My name is Rick Weaver, I live in Nevada City.

But anyway, we've got 900 parts per billion discharge, you know, of arsenic discharged from the adit, and it says here that the goal, the cleanup goal, is 10 parts per billion which is I guess for the base plan, that's the MCL for drinking water, and I was just wondering, I don't see anywhere in any of these alternatives where you talk about cleaning the discharge from the adit. Maybe I missed that, maybe you covered it.

MR. SETER: Yes, we mentioned it. It's not called out in as much detail in this document, but we do need to treat the water. We do need to treat the water that comes out of the adit and also as it comes out at the base of the log dam. So those are the two locations where we need to collect the water to treat it. To our knowledge, all of the other flows in the area are clean. And so we're going to go through a testing program to show that, but that water will have to be tested and will have to meet that 10 part per billion standard.

MR. WEAVER: You don't see a problem about doing that?

MR. SETER: 910 is on the high end. We don't believe that will be consistent. We believe that we will have a lesser amount in the creek, but conventional technology can certainly do that, can certainly get down to that.

MR. WEAVER: But I'm just wondering why you dom't have it listed in one of your alternatives, or did I miss it in the beginning?

MR. SETER: Well, it's in the material on page 9.

On page 9 we mention in the description to treat surface
water flows. Now, it doesn't specifically say the adit, it
doesn't specifically say the log dam, and so I tried to
cover that a little bit in my presentation. But, yes, those
are the two locations where we would treat the water.

MR. WEAVER: Thanks. I was a little late, so I missed that.

MR. BUNTE: I have just one additional point on that. I'm Dave Bunte. It's on all alternatives for the mine area, so that's a consistency throughout all the alternatives. So in terms of the plan we decide ultimately to go with, it's on all the alternatives.

MR. HODGE: As we work over this way, I think, Will, you were next, and then Fred you had a comment, and then we'll get to you and your comments.

MR. DOLEMAN: Okay. My name is Will Doleman, and my mom lives on Greenhorn Lane, and I'm also a member of ACTWS, it's a call for a long standing monitoring for a research group and we will arrange the water monitoring and research on water throughout the project area.

So anyway, I have just a few questions. One is

about the adit. Here in the document on page 4 about the adit, and about the highest levels of arsenic that were found anywhere were found at the adit in the sludge material. And I wanted to ask some questions about that sludge material. Now, you have been down to the Lost Lake Dam down below there where I made my video, you know, that orange sludge material, is that identical to the sludge material at the adit?

MR. SETER: I was not the person taking the samples, so I could not physically describe the two.

MR. TOWELL: What you're referring to, the sludge sample, that was sediment soil?

MR. DOLEMAN: Right, the sediment.

MR. TOWELL: The sample at the adit is a high concentration and was the soil sediment, not the orange material that you pointed out at the base of the log dam.

MR. DOLEMAN: But there's brown stuff down there as well.

Now, they talk about it as being very dangerous and being about 35 milligrams per liter, we've found in our own research in the sediment material at the base of the Lost Lake Dam. So what I wanted to know was what were the levels at the base, at the leak there, in the sediment material there, what was found there?

MR. TOWELL: At the base of Lost Lake --

MR. DOLEMAN: Lost Lake Dam, the material, the sediments that are down there in the channel. And I heard that they were high, but I never did get a number.

MR. TOWELL: I don't recall. I can look it up, we have the report here, and I can look it up and let you know later, but I don't know off the top of my head.

MR. DOLEMAN: Well, I would kind of like to know that and I guess the stuff at the adit was very water soluble, the way they talked about it being very dangerous? I guess that would be because it was very water soluble from the adit, the gelatinous-type material?

MR. TOWELL: I'm not sure what the question is.

I'm not sure the term very dangerous was used.

MR. DOLEMAN: Well, that's what it says on page 4.

MR. TOWELL: We don't specifically talk about the danger, those are very high arsenic concentrations that are well above any of the risk base numbers, but as far as specific properties of that material, I guess I don't know really what sort of response you want.

MR. DOLEMAN: Right. Well, in some samples they do water -- they do 12 milligrams per liter and there are other kinds of tests that they may do to determine water solubility?

MR. TOWELL: Correct. This is the soil solids.

MR. DOLEMAN: Oh. So you didn't do a test for

water solubility?

MR. TOWELL: Correct.

MR. DOLEMAN: All right. And then the other question I had was on the well test that you're doing. Is that at the well head before any filtration has taken place?

MR. TOWELL: Yes.

MR. DOLEMAN: Okay. And then across the board on arsenic now, is it both organic and inorganic arsenic, what mostly are you finding and what percentages? Those results were totaled, I assume.

MR. BUNTE: Right. I think it was in the groundwater and surface water, it's the inorganic and organic.

MR. DOLEMAN: Well, you test for both, right?

MR. BUNTE: We do it for total arsenic.

MR. DOLEMAN: Oh, okay. So the total is you do both and then you add them together?

MR. BUNTE: No, the total is that would impact arsenic in any form.

MR. DOLEMAN: So it's organic and inorganic?

MR. BUNTE: Correct.

MR. DOLEMAN: Okay. Now the other thing was, you know, if you do a partial cleanup now, it seems to me like it would probably hurt our ability later on possibly to get a full cleanup, basically because the agencies issuing the

money can say, well, we did a bunch over there and there are other people who really need it. So it would seem smarter to me to maybe wait one year and see if we couldn't get better funding. You know, everything may change, and we could get it from the Treasury, who knows. Things could change, you know, there could be the fund could come back and taxation of industry which is making this mess, you know. The money could come in from them to clean this up like they used to.

A lot of things can change, and we've already waited eight years to get this cleaned up, and it seems to me like what we really want is — partial cleanup is okay, but included in that there needs to be a timetable with dates stating that this is part of the whole thing and that we're this whole cleanup, and we're doing this part here and then we're doing this part here and then are doing this part here and the dates on each thing so the community is ensured that they don't come back and say, well, we've spent a bunch of money on you, these people over here need it more so the other part never gets cleaned up. You know, and I think that's important and it's just a statement I wanted to make.

And then on the other question I had was on the comments, to mail your comment to Mr. Hodge at the address shown on the document here, the mailing address?

MR. HODGE: Both or our addresses and phone

numbers and e-mail addresses are on there and either one of those works.

MR. DOLEMAN: Now, it says the 26th of March.

Now, does your comment need to be postmarked by that date or does it need to be received in San Francisco by that date?

MR. HODGE: A postmark by the end of the comment period.

MR. DOLEMAN: All right. Thanks, that all I had.

MR. HODGE: I think you were next, Fred.

MR. LEE: Fred Lee. Just a comment on your Superfund next steps. As I understand the situation, when you get to the final cleanup decision, there will be another public meeting where the public will have the opportunity to review this and comment on it?

MR. HODGE: Well, this is the main opportunity for official public comment on the proposed plan, and EPA is required to make a decision at some point, it is our responsibility to make the final decision. So at some point we will do that and we will write a Record of Decision. And we will, if there is enough interest, we would be glad to have another meeting and explain the Record of Decision. But at that point, it wouldn't be a comment period, it would be just to let you know what we did in deciding as a result of this process that we're conducting tonight.

MR. LEE: What if the public doesn't like what

you've decided?

MR. HODGE: Well, you know, someone has to make the decision, and since that is our responsibility, we will do it. We're trying through this process to make sure our decision incorporates all of the public's concerns and we will do that to the best of our ability.

Let's see, who was next?

MR. MILLER: My name is Michael Miller. I think what he was trying to say, but my question is do you know if it was AS-3 or AS-5, the arsenic?

MR. SETER: The data I saw, approximately 25 percent arsenic-3 in water, 25 percent arsenic-3 in water, the remainder would be arsenic-5.

MR. BUNTE: It's a mix and it varies by source and it could be different for the adit, the levels. But it is a mix of both arsenic-3 and 5.

MR. MILLER: And someone asked about a pet survey.

I did a pet survey on unfiltered mineralized water versus

filtered water, and the cat that drank the unfiltered

mineral water including the arsenic lived 22 years and the

one that was drinking filtered water lived 16.

MR. SETER: There you go, thanks.

MR. HODGE: Did you give us your name?

MR. MILLER: Michael Miller.

MR. HODGE: Okay. I wasn't sure I got that. But

just as a reminder, if you can make sure that you state your name and address for the record, we would appreciate it.

MR. HOLDREGE: Tom Holdrege from Nevada City. You said you were going to make the final decision, but you still haven't gone through the approval process, the project through the regional board and EPSCM actually by itself or do you have to?

MR. SETER: It's not quite the same process, but we're required to have state concurrence. So, in other words, the state has to say yes and agree. And part of that process is the state/Superfund contract where we both agree the EPA is going to spend this, the state's going to spend this on the plan, and the state takes over on that.

MR. HOLDREGE: So it's not a technical review then?

MR. SETER: Well, they do -- they do -- they have been reviewing. They reviewed this document, the feasibility study and they're reviewing our proposal. And we're generally working with two agencies, which is the Regional Water Quality Control Board. The Department of Toxic Substances Control is technically the lead agency for the state, but we really need both of them to concur. We need to come to some resolution. So as part of that process, we will get comments from them and have some -- if we need to have some conversations, we will. But at some

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point we need to come to agreement in order to fund a project.

MR. TOWELL: Just a little clarification too.

When the Record of Decision picks the remedy, and the state needs to agree that that's an acceptable remedy, but then there's still the design process where, again, the state agencies will review the actual design.

MR. HOLDREGE: But does Toxic Substances actually get their toxicologists involved in reviewing what the health risks are associated?

MR. SETER: Actually, the Department of Health
Services was involved. And I don't know if they agreed, and
I may be mistaken to what degree the Department of Toxic
Substances Control versus DHS, but we did have state
toxicologists commenting on our risk assessment, and I think
a fairly lengthy discussion, and I think we came up with a
better document for it. So, you know, they are actually
involved with it.

MR. HODGE: Sir.

MR. LEACH: Kyle Leach, Grass Valley.

And I was going to ask, was there any solubility testing done the material, the waste rock that's going to be capped and left in place, and if so, what methods were used?

MR. BUNTE: Actually, yes, we've done both the state and the federal standard tests, the PCLP, the control

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threshold test, and that's the TLC is the state test. We, run both on the material and they passed. The numbers that we took there, I think one sample that was above one of the values, the state values, the TLC, and its duplicate sample was below. So for most of the tests, except for that one test, they were all below both federal and state levels.

MR. LEACH: Did you do an acid test?

MR. BUNTE: We have not, but all of the runoff from the site is neutral, although there is pyrite and sulfide, which would generate acid in the waste rock and the tailings. There is also certain minerals which buffer that. So there would be added discharge in the surface water but it's actually neutral runoff.

MR. LEACH: So you used a specific acid test?

MR. BUNTE: We didn't run those tests specifically. The neutral pH that I was referring to is the actual water at the site.

MR. LEACH: But the lab tests that you did for solubility, was that with the water soaking or was it the standard lab test?

MR. BUNTE: Well, the solubility test that we did were the PCLP and the SPLC, we did not run a PI water extraction.

MR. BRENNER: I got here kind of late, I don't know if this has been covered already, but I'm concerned as

a resident who lives on Lava Cap Mine Road, what are the alternatives and the impacts you identified to a private road?

MR. HODGE: I'm sorry, was that your comments?

MR. BRENNER: Well, I can make them more formal,

if you would like. I left it open for discussion, however I

can make that comment more formal.

MR. HODGE: So the question is what are the impacts to the road?

MR. BRENNER: No, what impacts have you, the EPA and whatever consultants you've hired, identified to a private road that is narrow, that is in a deteriorated state, that up to 40 families use for their only access in and out of your properties?

MR. SETER: In our proposal, we're actually identifying Tensy Lane as one of the access points. We're not talking solely about Lava Cap Mine Road. And, again, this is the reason for taking comments, is we're -- you know, I don't know that we've fixed on one access route solely, two access routes.

MR. BRENNER: So what you've really identified for certain are mitigation options in this proposal, but that's only part of the picture. I think you really need to consider the impacts to the residents along Lava Cap Mine Road, the fact that it is the only access. The talk in the

past for the preliminary investigation, the EPA used that, road without identifying it and we found out after the fact there was damage to the thin pavement sections that cannot sustain heavy truck traffic. School children use the intersection of Lava Cap Mine and Idaho-Maryland and Lava Cap for the school bus. So I hope you consider these when you identify your access alternatives.

MR. HODGE: That's exactly the reason we hold these meetings in theory. We're not perfect, we don't always think of everything. I don't want to put you on the spot, David, but when we costed out our options did it include some maintenance of the road?

MR. SETER: I asked that we include -- in some cases the road might need to be improved prior to traffic, and certainly if we have traffic crowding the road, in some cases there might need to be repairs done. And, again, we could probably get you more specific information on it, you know, I just don't have it committed to memory how much of that was included in this proposal. But that is something I have asked to be included.

MR. BRENNER: Okay. Another thing you need to consider is that the Nevada Irrigation District is considering that as a new pipeline alternative route. I don't know what the timing of these two projects are, but certainly, if they overlap, you would create even more of an

impact to the local residents.

MR. SETER: We have been in conversations with the Nevada Irrigation District. So, it's been a little while since we've had a coordination with them, but we do want to talk to them about how our projects relate to one another, and certainly we would be happy to do that. If anyone has any other information on how these projects are proceeding, they may want to clue us in and we would be happy to hear from them.

MR. BRENNER: Thank you.

MR. HODGE: Could you state your name for the record, please?

MR. BRENNER: Mike Brenner.

MR. HODGE: And you're on Lava Cap Mine Road?

MR. BRENNER: Lava Cap Mine, yes.

MR. FERNLEY: My name is Volker Fernley, and I live on 11915 Tensy Lane. One of the problems which has not been included in the report which you might consider upon or which is potentially a problem is the mosquito problems caused by the ponds and puddles in the Little Clipper Creek due to the tailings being washed down and blocking it partially and creating these puddles. Will you consider to direct the creek afterwards so that there is nothing blocking the natural flow?

MR. SETER: Part of designing that will be a

decision, and part of it will rely on a field decision on how much material you actually dig up. But we will have as part of the design how the creek will look after it's cleaned up, and so, again, we're going to look for input and comment and if one of the comments is there are ponded areas and if everybody agrees that those aren't a good thing, we'll certainly consider that in the designs. But we'll make sure that our design includes what the final routing is. And, again, we like to stay involved with some sort of public involvement process and how that will work for design, I don't know if it's through the TAG or individually, but certainly we would be happy to include the residents in the design process, looking over the plans and so on.

MR. HODGE: Yes, please.

MR. DYER: Jim Dyer, Tensy Lane.

We would prefer Option 3-4, it sounds good to my wife and I. With that, how long would that take to perform, do you have any timetable to that, an estimate of how long that would require?

MR. SETER: I'm going to ask my contractor to answer that.

MR. TOWELL: To implement that?

MR. SETER: Certainly no longer than one construction season, that would be done in one season, one

summer. I don't know one month, two months or three months or four months.

MR. BUNTE: I think at this stage as you just said, it would be done in a construction season, we haven't identified the specific duration for that, but that certainly won't run the one construction season.

MR. TOWELL: But it would be in the range of two to four months start to finish, it's a relatively small project there on Little Clipper in the area, and there's some implementation issues because of access and vegetation and stuff, but it's not a large project.

MR. SETER: It depends on how many trees we want to save, because some of the areas might be better to have a hand digging effort than machinery, so that would take longer.

MR. DYER: You also mention in here airborne contamination, and I was wondering what range you were considering, as far as 150 feet from Little Clipper Creek on either side of it, 200 feet? What did you consider to be a hazard in terms of range?

MR. SETER: Well, there are ways of controlling dust, and so when we're working with a material that's already wet, so there's a compromise between can you haul it wet or do you need to let it dry out first. So obviously to let it dry out there's more airborne contaminants. There's

ways of creating -- we would bring in construction barriers to try to minimize that. And it also depends on how windy the condition is. A lot of the work is back within the woods and there's very little of the work that has to be done closer to the residences. So I would say it's certainly less of an impact, less amount of material than up at the mine. There's less material to handle overall. So I don't know if you guys have anything to add, but there are ways to try and minimize that factor.

MR. BUNTE: It would be primarily keeping the material wet during construction to minimize the airborne releases.

MR. TOWELL: The reason that's highlighted is that's probably one of the key considerations on the impacts during construction because the material is so fine, and if it's dry, it can become airborne.

MR. DYER: Have you considered using slurry technology, instead of hand digging it out, using a slurry pump?

MR. BUNTE: In terms of the nature of the material, there are some difficulties in doing that. If you slurry it on one end, you have to dewater it on the other prior to shipment, and because this material is so fine and dewaters so slowly, that becomes a much more complex operation in trying to do that. So there are approaches to

keep it as direct a method of excavating as possible.

MR. FERNLEY: I would just like to go on record that my wife and I also are in favor of 3-4.

MR. HODGE: I think you're next.

MR. HAUSSLER: Yes, my name is Doug Haussler and I live across the creek from Jim and Volker here, and I also like the idea of excavating during the spring when the stuff's wet and to keep the dust particulates at a minimum. And you guys are going to haul that back to the mine and cap it with the rest of the stuff up there?

MR. SETER: That's our proposal, yes.

MR. HAUSSLER: I like that idea. And I think that the people that are directly impacted by it ought to be the ones with the final say in it. I mean, you know, you're going to be motoring through their property doing this stuff and right alongside of mine.

MR. HODGE: How about if I finish working this way, since they have been waiting a while, then we'll move back the other way and do another pass.

MS. LEE: My name is Dixie Lee, we live on the third residence on the mine property. I would like to know what the difference in the level of arsenic is from down below the two other residences and the mine?

MR. HODGE: Do you remember off hand, Dave?

MR. SETER: I don't remember, it's considerably

1 lower. Those levels around some of the other residences . 2 were around 1,750 milligrams per kilogram, and --3 MR. TAYLOR: So you're talking 17 parts per billion to --4 Closer to the background levels is 5 MR. SETER: 6 what we consider in nonimpacted soil, which would be about 7 20 milligrams per kilogram. I don't know if anyone else remembers their level, but I thought it was under a hundred. 8 Is it close to a hundred? 9 10 MR. HODGE: Can you give him your name? 11 Tim Taylor, I live with Dixie Lee. MR. TAYLOR: 12 We live in a residence on Lava Cap Mine. 13 MR. TOWELL: The soils around that residence were 14 the highest one were between 100 and 200 parts per million 15 and the other houses were above a thousand. 16 This is the soil or water or what? MR. TAYLOR: The soil, the surface soil. 17 MR. TOWELL: 18 MR. TAYLOR: Okay. And all the residences, as David 19 MR. TOWELL: 20 mentioned, all of them are considered as part of the remedy 21 and potentially would have soil removed around them. 22 Well, FYI for everybody here, EPA has MR. TAYLOR: 23 paid off two people, two residences to move out to the tune 24 of -- how many dollars, Don?

MR. HODGE: I think the first one was somewhere

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around 20,000 and the second one was something like fourteen, but that's probably not exact.

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MS. LEE: I also have another question. When they are digging up all of this, how are they going to keep the dust down around the residences there? I mean are they going to keep it wet all the time?

MR. SETER: That's where the difference between these two landfills comes into play. If we put a cover over the material where it is now, we have to move it less. If we build a new cell, just the amount of material that has to be picked up and hauled, it can't be hauled saturated, like it's so wet now, it's a slurry in itself. It would have to be dewatered, it would have to be dried out before it could be placed in a new landfill cell. So we were talking about striking a balance between having the material wet or dry, it would have to be a little bit drier for that purpose, so it is more likely the material would potentially blow around.

Now, again, there are ways of trying to control that, but that's one of our concerns about building a new cell. And sometimes when we do construction, we will temporarily relocate people living on the site and so they don't have to be there when construction is happening. That also means thoroughly cleaning up and covering all the tracks, if there is any dust, any material that's escaped,

cleaning that up. So I think that's as best I can answer that question.

MR. THURBER: Craig Thurber, 13717 Raccoon

Mountain Road. I'm in Phase Two, I'm below Greenhorn there.

My property is on sort of the confluence of Little Clipper

Creek and Clipper Creek.

First, I want to commend you for using the terminology when you're going to clean up these properties of no land-use restrictions. And I want you to definitely keep that in mind when you move to Phase Two. In fact, I don't want to discuss anything else but that option.

And you answered quite a few of the questions. You know, just sort of back to reality of this really happening. Do you guys have sort of like a hazard rating system where throughout the United States there's all of these Superfund sites, a one through ten hazard, and is ours like a two where there's a lot of them that are eights and nines, because I'm really quite surprised that the money is even available to do any of this work.

MR. HODGE: When we list the site on what we call the National Priorities List, it has to meet a certain threshold in terms of endangerment of the people who live around it or the ecology of the site, otherwise, it doesn't reach Superfund level at all. Once sites are on the National Priorities List, we don't rank them, we don't have

a scale per se, but when we're ready to construct a remedy, we do have to propose our remedy to a panel that looks at all of the projects that are proposed across the country and prioritize them. It's called the National Prioritization Panel.

MR. THURBER: Sure.

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MR. HODGE: And, you know, if we rank high enough at that time with all the projects that are proposed at that time, we will get funded. If they determine that the danger here isn't as extreme as it is somewhere else, we probably wouldn't get funded. It's hard to say what the outcome will be at that time, because it depends on what other projects are proposed.

MR. THURBER: So we really haven't got to that phase yet?

MR. HODGE: No. That would be after the design phase.

MR. THURBER: You've been in this business longer than any of the rest of us, I just sort of have a gut feeling that our problem compared to other problems is maybe not real high.

MR. HODGE: We'll see. But, you know, Rollins
Reservoir downstream is a drinking water reservoir and to
have that amount of tailings potentially moving downstream,
moving its arsenic downstream into a drinking water supply

is not something we'd want to see happen.

MR. THURBER: Just one other question. The engineers considered possibly creating a slurry, a pipe system using the winter and finding old mine shafts and sort of putting it back in with a lot of added things to sort of bind up the arsenic, and so that would eliminate a lot of trucking and that sort of thing and it might take a few years. But it might be a cheaper remedy, because this community is a little bit like Paint Your Wagon, there's mineshafts under us, all of us, and most of us only own like a hundred feet down, the rest of it is still owned by mining companies and that sort of thing. Has that been considered or thought of?

MR. SETER: It might be mentioned in our -- we did some technology screening. I don't know, I know it's been floated before that idea, and there are a couple of difficulties. Putting the material back is a little bit difficult the way the shafts are constructed. It's a little bit harder to get the material back in. Second of all, you have to wonder what happens to it once it's back underground. I know that treating it would be too expensive, because treating it where it's in place now and solidifying it is already too expensive. So trying to treat it and put it down a mine shaft would definitely be too expensive. But then you still have to wonder where does the

material go. Once you put it underground, you still have to
wonder what's going to happen with the water system, is it
going to affect the water, the groundwater, and that's one
difficulty that would have to be considered for that.

MR. THURBER: Add 25 percent concrete or something and bind it up.

MR. HODGE: Again, the purpose of this meeting tonight is to take all of these comments down, and as Dave was saying earlier, we will provide a response to comments, a written record of the comments and our responses when we produce our Record of Decision. So having worked this way once, why don't we move back the other way.

MS. DYER: I just wondered if you could or your contractor could give us a little more detailed description of how you do the cleanup of Little Clipper Creek, where the access would be and what the disruption would be to our lives during that period?

MR. SETER: Let me see if I can find the right graphic here. Actually, I don't have an overhead of the primary. On all of our design drawings, there is what's called a primary structure. Is it on this one?

MR. HODGE: It's on the board back there.

MR. SETER: Okay, I'm sorry. Okay, so what appears to be the best is to actually create a temporary road on the far side, the opposite side of Tensy, to carry

1 the material up back towards the mine. Now, I don't know, 2 how much of it would then come back around to Tensy. 3 MR. TOWELL: That temporary road is just for 4 access to get to the tailings, it would be dug up using some 5 hand digging, some small machinery, some backhoe type of 6 device, machinery, and then it would be trucked back up. 7 And the current plan it would be trucked back up Tensy Lane 8 on to the site. 9 MR. THURBER: Where is Tensy in relation to the 10 end of Toby? 11 Tensy is this black line connecting MR. SETER: 12 three one. 13 MR. THURBER: Yeah. But the immediate access, the 14 closest access, wouldn't it be from the end of Toby Trail? 15 MR. SETER: No. 16 MR. THURBER: No? 17 MR. SETER: No. Toby trail is about a quarter of 18 a mile. 19 MR. THURBER: Okay.

MR. HODGE: I'm sorry, could you state your name?

MR. HAUSSLER: Oh, I'm sorry, Doug Haussler. On this temporary road that you guys are proposing on cutting here on the other side of the creek, how would that route up the hill?

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MR. SETER: I think what was -- it would basically

be to take it down this way.

MR. HAUSSLER: So you guys would actually carve a road up there, it's all forest right now, so you would actually cut a road through there?

MR. SETER: To get to the material on this side of Tensy, basically that has to be done. There is no way of getting in there to haul out that amount of material. So that's the question, what's the best alignments, and, again, I know that I would expect if I were a property owner, I would be inquiring about restoration, you know, once that road is finished, what happens to it.

MR. TAYLOR: There is an existing dirt road from the mine down to Greenhorn, you know, I can't tell you where it comes out exactly, I'd have to look at a map. But I happen to live on the property and I have driven it.

MR. DYER: you've driven it?

MR. TAYLOR: I thought it came out at the end of Toby, but it might be Tensy, yeah. That's probably it. I thought it was Toby.

MR. HAUSSLER: Well, it could be if you headed south.

MR. TAYLOR: I'm just heading from the mine straight down to Greenhorn there's a dirt road.

MR. HAUSSLER: There's lots of dirt roads.

MR. HODGE: Two things, one, you're right there is

a dirt road that comes out at the end of Tensy, and, secondly, just as a matter of procedure, it's really hard for the court reporter to take this down if we're all talking at once and we're not stating our names.

MR. SETER: I think these are good comments. If people have suggestions for routes that's great. This is again a proposal, and once we walk the area, if somebody has suggestions, you're certainly welcome to list them.

MR. HAUSSLER: Doug Haussler again. Yeah, I don't have any problem with them cutting a road there, I think it's on these guy's property, both Kirk and Ken's is actually where they would do that. I mean if they did it in a tidy fashion and didn't cut any of the tall trees, because it could stand a good cleaning down there by the creek.

MR. FERNLEY: My name is Volker Fernley. This is the beginning but I have a gate here so people don't drive into my well.

MR. DYER: What I'm thinking of is that the road goes down and there is a culvert where the creek goes under the road.

- MR. FERNLEY: This is the culvert here.
- MR. DYER: Okay, that's the culvert.
- MR. FERNLEY: It comes to my driveway right down here.
 - MR. DYER: Okay. So that's just about where your

well and the road takes --

MR. FERNLEY: Yeah. And this is the road that just goes like this.

MR. HODGE: Let's see, I saw a hand over here.

MR. BOOKS: My name is Joe Books, 15800

Greenhorn, on the bottom of the material here. I own six acres right down where that creek runs through. I like 3-4.

MR. HODGE: Okay, thanks.

Fred.

MR. LEE: Fred Lee again.

One of the mandatory requirements for a decision in the Superfund is public acceptance. How do you plan to gain and assess the public acceptance?

MR. HODGE: First of all, I'm not sure about the term mandatory. It is one of the criteria that we consider, so it's mandatory in that sense and we're required to consider it and we do take it serious. But there are always a lot of different interests and a lot of different opinions on every project that we do. And so we're often faced with the issue of trying to balance. Again, as I said, somebody has to make a decision at some point, and we will incorporate the concerns that we hear at this meeting and other comments that come to us through other means into the decision-making process. You know, that's what we are committed to doing. And hopefully, through that process, we

will come up with a result that the public can accept.

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MR. SETER: I have something to add, and we're always looking for ways, and what is the best way of incorporated public comments. So we have, and this is a formal process we're required to have here and we're required to take comments at this hearing, and there is a TAG, there is the committee, and we hired a technical advisor to give us inputs. But we're always looking for other ways, are there better forums, are there smaller groups, we want to work with who are more directly impacted. We're always looking for suggestions. And we're willing to accommodate other requests. This is just the formal process that's been set up that we have to do, and this is one aspect of that. We're willing to do other things to try to incorporate comments. So if there are any suggestions along those lines, we'd like to take them into consideration, if you can think of a better way to get us input, I'm open to that.

MR. YOUNG: Byron Young, Tesla Place.

Every few years an owner or somebody pops up with the idea of reopening the mine. Are there legal implications as a result of this program that affect that in any way?

MR. SETER: Yes. Just as I mentioned that in dealing with the residents and dealing with the creek down

near Greenhorn, we don't want land-use restrictions that, have too much imposition. When the tailings stay in place and where the adit is located, our intention is to have land-use restrictions to say there are only certain uses for this property. Now, in some cases, you know, the preferred way of getting that is to get a voluntary agreement with the property owner, and there are other ways of doing it if there is no voluntary agreement. But that's one exception to what I mentioned before about land-use restrictions, we do that to intend to restrict the way the property can be used. And I think opening the mine would certainly be one of those land-use restrictions.

MS. JONES: I'm Sharon Jones from the TAG Committee.

I put a yellow piece of paper out there, an e-mail sign-up list. If you want to be notified by e-mail of any communication between the EPA or between Fred and us or whatever, I can put you on the list and then we'll forward it to you. So if you would, just put your e-mail. And write it very clearly, because I noticed there's one e-mail out there that I couldn't read. So be sure you write it clearly enough so we can contact you.

MR. HODGE: That's a good point. We have our sign-up sheet out there also, and we do ask for e-mail addresses. But our standard method of communication is by

mail, unless we have specific needs to contact specific, groups of people and we sometimes use e-mail for that. But Sharon's list is for a different group and a different purpose.

MR. DOLEMAN: Will Doleman, ACFWS, Greenhorn Road. Yeah, I think the plan is very well written up from what I can see, and I guess we would probably prefer 3-4 it seems like the better for very little difference in money. The thing where it's lacking to myself and my mom, I talked to her about it, is that this is a very incomplete proposal. You're only talking about cleaning up a very small portion tonnagewise of the contaminated soil, because a lot of it is in Lost Lake. And more people live around Lost Lake, a lot of people live around Lost Lake, and you've only got four people living up at the mine.

We really think that we ought to just go with the whole proposal, the whole thing, and they can take it or leave it. But to do just part of it undermines our ability to do the whole thing. And we feel like we ought to just go for broke, we ought to go for the whole thing and we shouldn't just say that we should just do part of it. And the time scale, we could do one this season and one next season, but there ought to be agreement from up front that we're going to do this whole thing, that we're going to clean all of it.

MR. HODGE: That's probably a bigger issue that, we'll have to take back to the office and work on. Again, there will be a written response on the issues raised, but we might have to take that one under advisement.

Any more?

MR. TAYLOR: Yeah, one. I would like Alternative 1-0, it's not really mentioned, but that's to do nothing.

MR. HODGE: This is Tim Taylor.

MR. TAYLOR: My name is Tim Taylor, I live on the mine site.

Arsenic is a naturally occurring mineral in soil and it's something that happens when mining happens, and, you know, we buy property up here in the Sierras, and you kind of get what you pay for. And that's to do nothing.

MR. HODGE: Just to make sure I'm understanding, so your preferred alternative is to do what?

MR. TAYLOR: Well, it's to do nothing.

MR. HODGE: Just to do nothing?

MR. TAYLOR: Just to do nothing.

MR. HODGE: As Dave mentioned earlier, once we did our risk assessments and determined that there is some risk that's above our threshold to take action, we really can't just turn our back and walk away from it.

MR. TAYLOR: I understand. Where does it stop,

25 Don?

1 MR. HODGE: Yes, I would agree that there are . 2 potentially other sites like this that have not reached the 3 Superfund list and may never reach the Superfund list, but 4 since we are here working on this one, it's our intention 5 now to follow it through and make sure that we have done our 6 job. 7 MS. LEE: I have one. I mean after the funding, 8 when would they start digging up at the mine and doing the 9 work there, what timeframe, how long? 10 MR. SETER: Or for digging up soil around the 11 residences? 12 MS. LEE: Yes. 13 MR. SETER: Again, it's similar to down at the 14 creek, and it's probably even a little less complicated, 15 because you're probably talking a smaller amount of soil. 16 MR. TAYLOR: So two to three years before --17 MR. SETER: Oh, I'm sorry, before we even start 18 work? 19 MS. LEE: Yes. 20 MR. TAYLOR: Yes. 21 MR. SETER: We're hoping to be in construction 22 next summer, that's our current plan. 23 MR. HODGE: And obviously we wouldn't -- you know, 24 we're not just going to move in with trucks and backhoes

without talking to you folks first.

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MS. LEE: Well, my grandkids won't be there next summer.

MR. HODGE: One more question over here.

MR. GRANT: Jerry Grant, Alder Point. Just for the record and for everybody else, I would like to reiterate a little bit of what Will is talking about. I think that if you present the project as phase one of a total project, it feels better, at least for us and I think for a lot of residents who are involved down south of Greenhorn. Because this proposal makes everybody else feel like they're some lost children. So I highly encourage this as a phase one of a total project and not just a -- because this sounds like this is being presented as a project and then you're going to close down.

MR. FERNLEY: Volker Fernley. If you want to protect Rollins Lake, it would make no sense if you only do the upper part.

MR. HODGE: Maybe as a point of clarification, when we divide a Superfund site up into different projects, or alternatives as we call them in Superfund-speak, it doesn't mean that we will only do one and not do the rest. It's just a way of managing the site a little bit better. So if you look at the entire site, to do this upper unit first, is in effect phasing the entire site. But there are considerations that would speak to what you guys are

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suggesting. And as I said, we'll have to take that back to the office and kick that around a little bit.

Well, if there are no other questions or comments, let me just remind you that if you think of anything after this meeting, and this is not necessarily the end of this process, there are 28 or so more days of the comment period, we welcome comments in any form, you can call us up, write us, e-mail us, and all that information is on the fact sheet. So if you have any questions about the process, just give us a call. Thank you for coming tonight.

(Thereupon the public hearing was adjourned at 8:50 p.m. on February 26, 2004.)

CERTIFICATE OF SHORTHAND REPORTER

I, MICHAEL J. MAC IVER, a Shorthand Reporter, do hereby certify that I am a disinterested person herein; that I reported the foregoing Environmental Protection Agency proceedings in shorthand writing; that I thereafter caused my shorthand writing to be transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said Environmental Protection Agency proceedings, or in any way interested in the outcome of said Environmental Protection Agency proceedings.

IN WITNESS WHEREOF, I have hereunto set my hand this 12th day of March 2004.

Michael J. Mac Iver

Shorthand Reporter